

Application No.: 10/672,488

Docket No.: 60680-1792

**REMARKS**

Applicant has reviewed the detailed Final Office Action mailed January 10, 2005 (Paper No. 20050103) and thanks Examiner Patel for his review of the pending claims. In the Final Office Action, claims 1-9, 12-14 and 16-19 were rejected. Applicant respectfully requests reconsideration of the pending claims in view of the following remarks.

**Claim Rejections Under 35 U.S.C. §103**

Claims 1-9, 12-14, and 16-19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Umezawa (U.S. Patent No. 3,671,047) in view of Benson et al (U.S. Patent No. 5,829,240). Applicant respectfully traverses these rejections for the following reasons.

The present invention is directed to a piston ring having a plurality of surfaces. At least one of the surfaces includes a first coating of nodular thin dense chromium. As conceded by the Examiner, Umezawa does not disclose a first coating being of nodular thin dense chromium. The Examiner looks to Benson to fill this deficiency and reaffirms the previous obviousness rejection under 35 USC §103, stating that it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the chromium of Umezawa to be a nodular thin dense chromium coating as taught by Benson. (see the Office Action, page 2). Applicant respectfully disagrees and states that the obviousness rejection is improper because the Benson reference is non-analogous art. Furthermore, even if Benson was an appropriate reference, the Examiner has failed to point to any suggestion or motivation to combine the references.

**Non-Analogous Art**

*In re Oetiker* sets forth a two prong test for obviousness stating that "In order to rely on a reference as a basis for rejection of the applicant's invention the reference must either be in the field of the applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). Here, the Examiner has agreed that the references are not in the same field of endeavor, however, contends that the Benson reference is in the field of coatings and has the motivation that the coating provided by Benson would be strong and durable. (See the

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Office Action, page 3). First, Applicant respectfully submits that the Benson reference is not in the field of coatings. Benson discloses an improved bearing surface on spinning rings used in a textile yarn spinning process. In fact, Benson explicitly states in the "FIELD OF THE INVENTION" section that, "the present invention relates to a spinning ring for textile yarn spinning, and more specifically relating to a spinning ring having an improved bearing surface for supporting a traveler." Clearly, Benson is in the field of textile yarn spinning, not in the field of coatings.

Second, *Oetiker* further states that "...the courts have recognized the subjective aspects of determining whether an inventor would reasonably be motivated to go to the field in which the examiner found the reference, in order to solve the problem confronting the inventor. We have reminded ourselves and the PTO that it is necessary to consider 'the reality of the circumstances' ... in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor." *Id.* Here, the Benson reference fails to meet this criteria. The inventor in the present case was concerned with the effectiveness of piston rings, not textile yarn spinning. By way of example, the specification specifically states that the inventor needed to develop "an improved piston ring that can withstand the harsh operating environment of today's engines". Indeed, one of ordinary skill in the art of high efficiency engines and piston rings would not be reasonably expected to look to the art of textile yarn spinning to improve a piston ring. Therefore, for at least this reason, Applicant respectfully submits that Benson is an inappropriate prior art reference under §103.

No Motivation or Suggestion to Combine

In responding to the Applicant's arguments filed 10/25/04, the Examiner states that the motivation is that the coating provided by Benson would be stronger and more durable. (See the Office Action, page 3). Applicant respectfully submits that strength and durability are merely terms to describe the effect of applying a coating of hard nodular dense chromium onto a surface. It does not provide a sufficient teaching or motivation to combine the references.

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"Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). "[T]here must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant." *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998). Applicant respectfully submits that the Benson reference does not provide any motivation, suggestion, or teaching of the desirability to combine a hard nodular dense chromium coating with piston rings. Moreover, the Examiner has failed to point out any particular location in Benson which teaches or suggests this combination.

For any of the reasons set forth above, Applicant submits that claims 1-9, 12-14 and 16-19 are allowable over the cited art and in condition for allowance. Applicant respectfully requests reconsideration and withdrawal of the rejection.

#### CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. 60680-1792 from which the undersigned is authorized to draw.

Dated: March 9, 2005

Respectfully submitted,

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